## **AMENDMENTS TO THE CLAIMS**

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made. The claims have been amended as follows:

What is claimed is:

1. (Currently Amended) A method for <u>logging changes that are made during</u>

<u>a reorganization process</u> reorganizing data, comprising:

reading each record of a source file associated with <u>at least one of a plurality</u> of objects an object;

writing each record to a destination file;

identifying changes to the <u>plurality of objects</u> object that are made during a reorganization process;

for each change, determining whether the change affects <u>an object being</u> reorganized the reorganization process;

creating a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect <u>an object being</u> reorganized the reorganization process;

reading each log record of the log file;

processing each record of the log file to effect the associated change to the destination file; and

replacing the source file with the destination file.

- 2. (Original) A method according to claim 1 wherein the source file is an index file.
- 3. (Original) A method according to claim 1 wherein the source file is a data file.
- 4. (Original) A method according to claim 1 wherein the step of creating a log file is performed in accordance with instructions of a DBMS log routine.
  - 5. (Original) A method according to claim 4 wherein the log file contains a

subset of all records processed by the DBMS log routine.

- 6. (Original) A method according to claim 4 wherein the log file records are selected based on a program call established by a reorganization utility.
- 7. (Original) A method according to claim 6 wherein the program call is removed prior to termination of the reorganization utility.
- 8. (Currently Amended) A method for logging changes by a database management system, comprising:

identifying changes to a plurality of objects that are made a change to be logged, wherein the change occurs during a reorganization process;

creating a log record based on the a particular change;

determining whether the <u>particular</u> change affects <u>an object being</u> reorganized the reorganization process;

storing the log record in a first log file recording selected changes only if the <u>particular</u> change is determined to affect <u>an object being reorganized</u> the reorganization process; and

storing the log record in a second log file <u>regardless of whether</u> if the change is not determined to affect an object being <u>reorganized</u> the <u>reorganization process</u>.

- 9. (Original) A method according to claim 8 wherein the first log file resides in virtual storage.
- 10. (Original) A method according to claim 8 wherein the first log file resides in dataspace.
- 11. (Previously Presented) A method according to claim 8 wherein the first log file resides in hyperspace.
- 12. (Original) A method according to claim 8 wherein the first log file resides in DASD.

13. (Currently Amended) An apparatus for <u>logging changes that are made</u> during a reorganization process reorganizing data, comprising:

means for reading each record of a source file associated with <u>at least one of a</u>

plurality of objects an object;

means for writing each record to a destination file;

means for identifying changes to the **plurality of objects** object that are made during a reorganization process;

means for determining whether each change affects <u>an object being</u> reorganized the reorganization process;

means for creating a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect <u>an object being</u> reorganized the reorganization process;

means for reading each log record of the log file;

means for processing each record of the log file to effect the associated change to the destination file; and

means for replacing the source file with the destination file.

- 14. (Original) An apparatus according to claim 13 wherein the source file is an index file.
- 15. (Original) An apparatus according to claim 13 wherein the source file is a data file.
- 16. (Original) An apparatus according to claim 13 wherein the log file is created in accordance with instructions of a DBMS log routine.
- 17. (Original) An apparatus according to claim 16 wherein the log file contains a subset of all records processed by the DBMS log routine.
- 18. (Original) An apparatus according to claim 16 wherein the log file records are selected based on a program call established by a reorganization utility.

- 19. (Original) An apparatus according to claim 18 wherein the program call is removed prior to termination of the reorganization utility.
- 20. (Currently Amended) An apparatus for <u>logging changes that are made</u> during a reorganization process reorganizing data, comprising:
  - a processor;
  - a memory connected coupled to said processor and storing a program to control the operation of said processor;

the processor operative with the program in the memory to:

read each record of a source file associated with <u>at least one of a</u>

plurality of objects an object;

write each record to a destination file;

identify changes to the <u>plurality of objects</u> object that are made during a reorganization process;

for each change, determine whether the change affects <u>an object being</u>
reorganized the reorganization process;

create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect <u>an object being</u> reorganized the reorganization process;

read each log record of the log file;

process each record of the log file to effect the associated change to the destination file; and

replace the source file with the destination file.

- 21. (Original) An apparatus according to claim 20 wherein the source file is an index file.
- 22. (Currently Amended) An apparatus according to claim 20 wherein the source file is an a data file.
- 23. (Original) An apparatus according to claim 20 wherein the processor is further operative with the program in the memory to create the log file in accordance with

instructions of a DBMS log routine.

- 24. (Original) An apparatus according to claim 23 wherein the log file contains a subset of all records processed by the DBMS log routine.
- 25. (Original) An apparatus according to claim 20 wherein the processor is further operative with the program in the memory to select the log file records based on a program call established by a reorganization utility.
- 26. (Original) An apparatus according to claim 23 wherein the processor is further operative with the program in the memory to remove the program call prior to termination of the reorganization utility.
- 27. (Currently Amended) A computer-readable storage medium encoded with processing instructions for implementing a method for <u>logging changes that are made</u> <u>during a reorganization process</u> reorganizing data, the processing instructions for directing a computer to perform the steps of:

reading each record of a source file associated with <u>at least one of a plurality</u> of objects an object;

writing each record to a destination file;

identifying changes to the <u>plurality of objects</u> object that are made during a reorganization process;

for each change, determining whether the change affects an object being reorganized the reorganization process;

creating a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect <u>an object being</u> reorganized the reorganization process;

reading each log record of the log file;

processing each record of the log file to effect the associated change to the destination file; and replacing the source file with the destination file.

## 28. (Currently Amended) A method for <u>logging changes that are made during</u> a reorganization process reorganizing data, comprising:

creating an empty destination file;

establishing a program call to process log records;

reading each record of a source file associated with <u>at least one of a plurality</u> of objects an object;

writing each record to the destination file;

identifying changes to the <u>plurality of objects</u> object that are made during a reorganization process;

for each change, determining whether the change affects an object being reorganized the reorganization process;

employing the established program call to create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect <u>an object being reorganized</u> the reorganization process;

removing the established program call;

reading each log record of the log file;

processing each record of the log file to effect the associated change to the destination file; and

replacing the source file with the destination file.

- 29. (Previously Presented) A method according to claim 28 wherein the source file is an index file.
- 30. (Previously Presented) A method according to claim 28 wherein the source file is a data file.

## 31. (Currently Amended) An apparatus for <u>logging changes that are made</u> during a reorganization process reorganizing data, comprising:

means for creating an empty destination file;

means for establishing a program call to process log records;

means for reading each record of a source file associated with <u>at least one of a</u> plurality of objects an object;

means for writing each record to the destination file;

mean for identifying changes to the **plurality of objects** object that are made during a reorganization process;

means for determining whether each change affects an object being reorganized the reorganization process;

means for employing the established program call to create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect <u>an object being reorganized</u> the reorganization process;

means for removing the established program call;

means for reading each log record of the log file;

means for processing each record of the log file to effect the associated change to the destination file; and

means for replacing the source file with the destination file.

- 32. (Previously Presented) An apparatus according to claim 31 wherein the source file is an index file.
- 33. (Previously Presented) An apparatus according to claim 31 wherein the source file is a data file.

## 34. (Currently Amended) An apparatus for <u>logging changes that are made</u> <u>during a reorganization process reorganizing data</u>, comprising:

a processor;

a memory <u>coupled</u> connected to said processor <u>and</u> storing a program to control the operation of said processor;

the processor operative with the program in the memory to:

create an empty destination file;

establish a program call to process log records;

read each record of a source file associated with <u>at least one of a</u>

plurality of objects an object;

write each record to the destination file;

identify changes to the **plurality of objects** object that are made during a reorganization process;

for each change, determine whether the change affects an object being reorganized the reorganization process;

employ the established program call to create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect an object being reorganized the reorganization process;

remove the established program call;

read each log record of the log file;

process each record of the log file to effect the associated change to the destination file; and

replace the source file with the destination file.

- 35. (Previously Presented) An apparatus according to claim 34 wherein the source file is an index file.
- 36. (Currently Amended) An apparatus according to claim 34 wherein the source file is a an data file.

37. (Currently Amended) A computer-readable storage medium encoded with processing instructions for implementing a method for <u>logging changes that are made</u> <u>during a reorganization process</u> reorganizing data, the processing instructions for directing a computer to perform the steps of:

creating an empty destination file;

establishing a program call to process log records;

reading each record of a source file associated with <u>at least one of a plurality</u> of objects an object;

writing each record to the destination file;

identifying changes to the <u>plurality of objects</u> object that are made during a reorganization process;

for each change, determining whether the change affects <u>an object being</u> reorganized the reorganization process;

employing the established program call to create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect an object being reorganized the reorganization process;

removing the established program call;

reading each log record of the log file;

processing each record of the log file to effect the associated change to the destination file; and

replacing the source file with the destination file.